

- | | | | |
|---|--|--|----------------------|
| (57) United States | | US 2003-232136A1 | |
| (52) Patent Application Publication | | (53) Pub. No.: US 2003/0162516 A1 | |
| Holmes | | (55) Pub. Date: | Aug. 28, 2003 |
| (04) DISTRIBUTED AUTOMATIC GAIN CONTROL SYSTEM | | (51) U.S. CL. | 482D/A; 482E.1; 482F |
| (73) Inventor: Jeff Holmes, Douglass, MD (U.S.) | | (72) | ABSTRACT |
| Correspondence Address:
LEWIS RAY & PIERAGALLI, P.A.
FOO BOX RETURN
MIDLAND PARK, NY 10950-0000 US | | A wireless distribution system includes a number of access points distributed at a coverage area to transmit network signals and to provide the signals through the distribution system to target zones of a user. Within the signals are embedded, a number of base power stations sequentially transmitted to one or more of the target zones to determine power levels of signals received at the target zones, and also gain information to control signals received at those to all of the target zones, a unit to execute a planning of signal from the plurality of target zones, and a controller to generate control signals to adjust one or more of the variable gain amplifiers. | |
| (75) Assignee: ABC Telecommunications, Inc. | | | |
| (76) Att. by: JAMES LEE | | | |
| (77) Filed Feb. 28, 2003 | | | |
| Publication Classification | | | |
| (71) Int. Cl. | | H04B 1/66 | |

FIG. 1

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current X	Retr	Inventor	S
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20030162516 A1	20030828	8	Distributed automatic gain control system	455/234.1	455/232.1; 455/3.01		Sohum, Jeff	<input checked="" type="checkbox"/>

BEST AVAILABLE COPY

EAST - [10084115-2.wsp:1]
File View Edit Tools Window Help

☐ Drafts
☐ Pending
☒ Active

☐ Failed
☒ Saved

☐ Favorites
☒ Tagged (0)

L1: (43676) 370/ccls. or "375"/\$.ccls.
L2: (90) 1 and (wireless near5 distribution)
L3: (0) 2 and (variable near3 gain near3 controller)
L4: (161055) "455"/\$.ccls. or "340"/\$.ccls.
L5: (524) 4 and (wireless near5 distribution)
L6: (2) 5 and (variable near5 gain near5 controller)
L7: (1156) 4 and (wireless near5 distribut\$3)
L8: (2) 7 and (variable near5 gain near5 controller)
L9: (1) "variable gain controller" and (wireless near5 distribut\$3)
L10: (1) "digital expansion unit" and "variable gain controller"
L11: (1) "digital expansion unit" and "gain controller"

S1: (161502) digital near5 (unit or device)
S2: (35200) S1 and (building or office)
S3: (1269) S2 and ((expaud\$3 or expansion) near3 (device or unit))
S4: (528) S3 and wireless
S5: (231) S4 and RF
S6: (0) S5 and (variable near3 gain near3 controller)
S7: (2) S5 and (variable near3 gain)

United States
Patent Application Publication
Pub. No. US 2003/0162516 A1
Pub. Date Aug. 28, 2003

(51) Int. Cl. H03H 1/02
(52) U.S. Cl. 325/24.1; 325/23.1; 325/3.01
(54) Title: DISTRIBUTED AUTOMATIC GAIN CONTROL SYSTEM
(57) Abstract: A distributed automatic gain control system includes a number of nodes (101) distributed in a network area to receive incoming signals and to provide the signals through the distribution system to input ports of a gain controller (110) which receives the signals and provides a number of gain control signals (111) to a number of output ports (112) of the gain controller (110). The gain controller (110) is connected to a number of output ports (112) of the gain controller (110) which provides a number of gain control signals (111) to a number of output ports (112) of the gain controller (110). The gain controller (110) is connected to a number of output ports (112) of the gain controller (110) which provides a number of gain control signals (111) to a number of output ports (112) of the gain controller (110).

BRS form IS&R form Image Text HTML

	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current X	Retn	Inventor	S
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20030162516 A1	20030828	8	Distributed automatic gain control system	455/234.1	455/232.1; 455/3.01		Sohm, Jeff	<input checked="" type="checkbox"/>

Hits
Delete
HTML

Ready
NUM



- ☑ L7: (58) 6 and remote
- ☑ L8: (3) 7 and "input port"
- ☑ L9: (38) 7 and port
- ☑ L10: (37) 9 and monitor\$3
- ☑ L11: (35) 10 and "control signal"
- ☑ L12: (35) 11 and (combin\$3 near5 signal)
- ☑ L13: (35) 12 and digital
- ☑ L14: (33) 13 and stream
- ☑ L15: (2) 14 and "predetermined level"
- ☑ L16: (580) 3 and "base station"
- ☑ L17: (72) 16 and (controller and node)
- ☑ L18: (52) 17 and "power level"
- ☑ L19: (44) 18 and monitor\$3
- ☑ L20: (35) 19 and "control signal"
- ☑ L21: (33) 20 and (combin\$3 near5 signal)
- ☑ L22: (17) 21 and port
- ☑ L24: (3) 23 and "predetermined level"
- ☑ L23: (17) 22 and digital
- ☑ L25: (3) 23 not satellite
- ☑ L26: (27) 20 and (combin\$3 near5 signal)
- ☑ L27: (13) 26 and port

Failed

United States Patent (n)

Patent Number: 5,353,916

Date of Patent: Nov. 13, 1994

ABSTRACT

A communication system and method for determining the location of a mobile station.

The system includes a base station, a mobile station, and a location determination system.

The base station transmits a signal to the mobile station, and the mobile station transmits a signal back to the base station.

The location determination system receives the signal from the mobile station and determines the location of the mobile station.

The location determination system includes a receiver, a processor, and a transmitter.

The receiver receives the signal from the mobile station, the processor processes the signal, and the transmitter transmits the signal back to the base station.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.

The location determination system is used in a communication system.



BRS form IS&R form Image Text HTML

	U	I	Document ID	Issue Date	Pages	Title	Current OR	Current X	Retn	Tr
8	<input type="checkbox"/>	<input type="checkbox"/>	US 6185409 B1	20010206	87	Network engineering/systems engineering system for mobile satellite	455/12.1	455/427		Threadgill; M
9	<input type="checkbox"/>	<input type="checkbox"/>	US 6112085 A	20000829	75	Virtual network configuration and management system for satellite com	455/428	455/430		Garnier; Will
10	<input type="checkbox"/>	<input type="checkbox"/>	US 6058307 A	20000502	97	Priority and preemption service system for satellite related communic	455/428	455/12.1		Garnier; Will
11	<input type="checkbox"/>	<input type="checkbox"/>	US 5913164 A	19990615	90	Conversion system used in billing system for mobile satellite system	455/427	455/12.1; 455/406;		Pawa; Robe
12	<input type="checkbox"/>	<input type="checkbox"/>	US 5713075 A	19980127	75	Network engineering/systems engineering system for mobile satellite	455/427	455/12.1		Threadgill; M
13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5365516 A	19941115	95	Communication system and method for determining the location of a trans	370/335	340/991; 342/457;		Jandrell; Lo

Hits Details HTML

Ready

NUM

EAST - [10084115-2.wsp:1]

File View Edit Tools Window Help

Drafts
Pending
Active
L1: (161502) digital near5 (unit or device)
L2: (35200) 1 and (building or office)
L3: (1269) 2 and ((expand\$3 or expansion) near3 (device or unit))
L4: (528) 3 and wireless
L5: (231) 4 and RF
L6: (0) 5 and (variable near3 gain near3 controller)
L7: (2) 5 and (variable near3 gain)
L8: (3103) 1 and (within near8 (building or office))
L9: (5) 8 and (variable near3 gain near3 controll\$3)
L10: (4) 9 and wireless
L11: (3) 10 and RF
Failed
Saved
Favorites
Tagged (2)
UDC
Queue
Trash

Refresh List Browse Queue Clear
DBs: US-PG-PUB:USPAT:EPO ☒ Eureka
Default operator: OR ☐ Highlight all hit terms initially

10 and RF

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current X	Reti	Inventor	S
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20040097189 A1	20040520	20	Adaptive personal repeater	455/7			Bongfeldt, David et al.	<input checked="" type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	US 20020045461 A1	20020418	15	Adaptive coverage area control in an on-frequency repeater	455/522	455/11.1; 455/69		Bongfeldt, David	<input checked="" type="checkbox"/>
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 20020045431 A1	20020418	16	Intelligent gain control in an on-frequency repeater	455/234.1	455/245.1; 455/250.1;		Bongfeldt, David	<input checked="" type="checkbox"/>

Ready NUM

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.